

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization International Bureau



(43) International Publication Date
30 June 2005 (30.06.2005)

PCT

(10) International Publication Number
WO 2005/058937 A2

- (51) International Patent Classification⁷: C07K (81) Designated States (*unless otherwise indicated, for every kind of national protection available*): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (21) International Application Number: PCT/US2004/041921
- (22) International Filing Date: 10 December 2004 (10.12.2004)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data: 60/529,329 12 December 2003 (12.12.2003) US
- (71) Applicant (*for all designated States except US*): GOVERNMENT OF THE UNITED STATES OF AMERICA, as represented by THE SECRETARY, DEPARTMENT OF HEALTH AND HUMAN SERVICES [US/US] (US).
- (72) Inventors; and
- (75) Inventors/Applicants (*for US only*): SCHLOM, Jeffrey [US/US]; 10301 Sorrel Avenue, Potomac, MD 20854 (US). TSANG, Kwong-Yok [US/US]; 5420 York Lane, Bethesda, MD 20814 (US).
- (74) Agent: PATTON, Stephana, E.; Edwards & Angell, LLP, P.O. Box 55874, Boston, MA 02205 (US).
- (84) Designated States (*unless otherwise indicated, for every kind of regional protection available*): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

— without international search report and to be republished upon receipt of that report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.



WO 2005/058937 A2

(54) Title: A HUMAN CYTOTOXIC T-LYMPHOCYTE EPITOPE AND ITS AGONIST EPITOPE FROM THE NON-VARIABLE NUMBER OF TANDEM REPEAT SEQUENCE OF MUC-1

(57) Abstract: Novel MUC-1 epitopes outside the VNTR region are identified. In addition, the first agonist epitope of MUC-1 is described. The employment of agonist epitopes in peptide, protein and vector-based vaccine may well aid in the development of effective vaccines for a range of human cancers.

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
30 June 2005 (30.06.2005)

PCT

(10) International Publication Number
WO 2005/058937 A3

- (51) International Patent Classification:
G01N 33/53 (2006.01) C07K 16/18 (2006.01)
G01N 33/567 (2006.01) C07K 7/64 (2006.01)
- (21) International Application Number:
PCT/US2004/041921
- (22) International Filing Date:
10 December 2004 (10.12.2004)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:
60/529,329 12 December 2003 (12.12.2003) US
- (71) Applicant (for all designated States except US): GOVERNMENT OF THE UNITED STATES OF AMERICA, as represented by THE SECRETARY, DEPARTMENT OF HEALTH AND HUMAN SERVICES [US/US] (US).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): SCHLOM, Jeffrey [US/US]; 10301 Sorrel Avenue, Potomac, MD 20854 (US). TSANG, Kwong-Yok [US/US]; 5420 York Lane, Bethesda, MD 20814 (US).
- (74) Agent: PATTON, Stephana, E.; Edwards & Angell, LLP, P.O. Box 55874, Boston, MA 02205 (US).
- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

— with international search report

(88) Date of publication of the international search report:
7 June 2007

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

WO 2005/058937 A3

(54) Title: A HUMAN CYTOTOXIC T-LYMPHOCYTE EPITOPE AND ITS AGONIST EPITOPE FROM THE NON-VARIABLE NUMBER OF TANDEM REPEAT SEQUENCE OF MUC-1

(57) Abstract: Novel MUC-1 epitopes outside the VNTR region are identified. In addition, the first agonist epitope of MUC-1 is described. The employment of agonist epitopes in peptide, protein and vector-based vaccine may well aid in the development of effective vaccines for a range of human cancers.